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Command and Control of Air Power in MOOTW.

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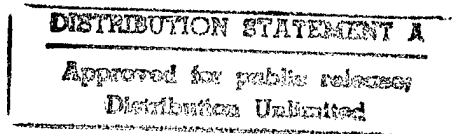
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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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## **ABSTRACT**

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### **Command and Control of Air Power in MOOTW**

Current joint doctrine is driving C2 organizations toward centralized control for all air operations. While the centralized planning process proved invaluable to the air war in Operation Desert Storm, the reactive environment found in MOOTW is only constrained by this planning process, forcing the users to develop covert work arounds to avoid the system.

This paper begins by framing the debate between centralized and decentralized C2 of air power, starting with its origin and ending with current doctrine. It then categorizes the offensive roles of air power in previous MOOTW. With these roles in mind, it will establish some enduring principles for C2 organizations supporting air operations in MOOTW. This paper finds a place for decentralized control of air power in MOOTW operations. Both centralized and decentralized control can still meet the needs of air power.

After the friendly fire shootdown of two U.S. Army helicopters by U.S. Air Force fighter aircraft during Operation PROVIDE COMFORT, the Chairman of the Joint Chiefs of Staff (CJCS) directed several changes to the joint doctrine for air operations.

“A major change is to require all airborne missions engaged in Military Operations Other Than War (MOOTW) that are prone to fluctuations between combat and non-combat, to be published on the air tasking order (ATO) or flight plan...This will help enhance the seamless command and control during difficult, sensitive operations...and facilitate the quick transition from peacetime [non-combat] to combat and back again”<sup>1</sup>

Asserting the authoritative nature of joint doctrine, this directive gives a Joint Force Commander (JFC) specific guidance regarding the command and control of joint air operations in MOOTW. The success of the Joint Air Component Commander (JFACC) during Operation DESERT STORM is driving joint doctrine towards mandating centralized control of all air assets for every air operation. Centralized control will not work for every air operation in MOOTW. Command and Control(C2) organizations must maintain the ability to support an operation where air assets are decentralized, to meet the needs of the mission.

This paper begins by framing the debate between centralized and decentralized C2 of air power, starting with its origin and ending with current doctrine. It then categorizes the offensive roles of air power in previous MOOTW. With these roles in mind, it will establish some enduring principles for C2 organizations supporting air operations in MOOTW. Finally, it will challenge the ability of the CJCS directive to adhere to these principles, and evaluate the ability of centralized control to support air power effectively in MOOTW.

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<sup>1</sup> Congress, House, Committee on National Security, Friendly Fire Shootdown of Army Helicopter Over Northern Iraq, Hearing before the Subcommittee on Military Personnel, 104th Cong, 1st sess, 3 August 1995, 205.

## THE DEBATE.

British and U.S. Air Forces realized the benefits of centralizing the control of air assets in the North African desert in 1943. By combining the allied air forces under one theater air commander, air assets could wage an "air war" on the German Air Force, independent from the ground battle. The allied ground commanders paid the price for this air war, operating without the level of air support they normally received. Airmen measured the effectiveness of air power in reference to what it could do for the entire campaign, not what it could do for the individual ground battles.

Allied ground commanders preferred to retain command of their supporting air assets for use during ground battles. By retaining command, ground commanders used their air arm in a coordinated effort with attacking ground troops. By using air assets to attack enemy troops in contact, air power provided direct support to the ground battle. While this hampered the overall air war, it increased the effectiveness of the army in winning the current battle. Ground commanders measured the effectiveness of air power as it related to the current ground battle.

So starts the debate--With air power centralized under the control of the theater air commander, the majority of the air assets were used to prosecute the "air war," aiding the campaign. With air power decentralized to individual army headquarters, air power was more responsive to the actual battle on hand. Which method of control resulted in the more effective use of air power, centralized or decentralized? US Army Air Corps observer reports written in 1943, still fuel this debate today.<sup>2</sup> "When a ground unit is launched in a major

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<sup>2</sup> An excellent review of control of airpower in North Africa, See Stephen McNamara, Air Power's Gordian Knot(Maxwell AFB: Air University Press 1994)

attack, it needs and should have direct air support...The detailed plans for the air participation must, therefore, be made at and by the ground headquarters actually planning the attack...In the periods between major attacks...the Air can be employed more effectively under centralized control”<sup>3</sup>

Based on the JFACC’s success in Operation DESERT STORM, current joint doctrine is rooted in the theory of centralized control of air assets for the prosecution of the air war. By centralizing control of all air assets under the JFACC, the benefits of unity of effort and centralized planning are realized. By using a joint air tasking cycle, all available air assets are used to conduct the air war to meet the overall objectives of the JFC.<sup>4</sup> But in MOOTW, there is often no air war, and the method for C2 of air assets is not clearly stated in joint doctrine. While joint doctrine does not dictate a method of C2, it states, “in MOOTW environments...all air mission, including both fixed and rotary-winged must appear on the appropriate ATO/flight plan.”<sup>5</sup> Is centralized planning necessary to maintain air power’s effectiveness in MOOTW? “In short, air power can win battles, or it can win wars. All commanders since Pyrrhus have been tempted at one time or another to confuse the two, but few distinctions in war are more important.”<sup>6</sup>

#### **AIR POWER and MOOTW.**

Joint Pub 3-07<sup>7</sup> defines 16 types of military actions which are considered MOOTW, and may involve elements of both combat and non-combat operations. Providing a “missing

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<sup>3</sup> “Colonel Dexter’s Report,” U.S. Naval Institute Proceedings, 116 No 12, Dec 1990, 44.

<sup>4</sup> Joint Chiefs of Staff, Joint Doctrine for Command and Control for Joint Air Operations (Joint Pub 3-56.1)(Washington, D.C.: November 14, 1994, vi

<sup>5</sup> Ibid.,vii.

<sup>6</sup> Mcnamara, 113.

<sup>7</sup> Joint Chiefs of Staff, Joint Doctrine for Military Operations Other Than War(Joint Pub 3-07)(Washington, D.C.: June 16, 1995.

framework" to Joint Pub 3-07, Air Force Doctrine Document (AFDD) 2-3 categorizes MOOTW actions in relation to combat (classic offensive use of air power), non combat (primarily air support operations) and overlapping operations ( either combat or non combat). However, it carefully cautions that there is an "ever-existing possibility that any type of MOOTW may quickly change from non-combat to combat and vice versa."<sup>8</sup> For example, aircraft supporting Operation PROVIDE COMFORT, an operation with the stated mission of Humanitarian Assistance (designated as typically non-combat), found themselves in situations which quickly required the offensive capabilities of air power. Is this now, Combat Humanitarian Assistance? Rather than focusing on the type of mission being conducted, the JFC must recognize the role offensive air power plays in MOOTW.

The offensive potential of air power makes it an increasingly attractive tool in the diplomacy of deterrence or coercive statecraft. "[C]ombat aircraft are performing an unprecedented range of more intrusive presence operations."<sup>9</sup> Responding to crisis situations with air power is now operational practice as "the positioning of aircraft in close proximity...offers the potential for immediate use in a less inflammatory fashion than can be achieved by ground troops."<sup>10</sup> With the ability to assert air superiority in almost any crisis region brings more aggressive applications of air power. Overall, the offensive uses for air power in MOOTW are characterized by three mission types.

**1. STRIKES AND RAIDS:** Strikes and Raids are inherently offensive by design and particularly suited to air power. By nature, air strikes match the combat capabilities of air

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<sup>8</sup> Secretary of the Air Force, Air Force Doctrine for Military Operations Other Than War, (Air Force Doctrine Document 2-3)(Washington D.C.: October 5, 1996), 5

<sup>9</sup> Military Presence Abroad.

<sup>10</sup> Andrew Brookes, "Above and Beyond? Capabilities of out-of-area Air Power," RUSI Journal, October 1993, 31.

power. Further, air strikes are quick and often disproportionate in result, most often producing the desired “shock” effect. Air strikes offer the best opportunity to employ offensive air power in an efficient and effective manner. Unfortunately, air strikes cannot solve every political situation. “Strikes and Raids are also the least common MOOTW for air power, occurring only eight times since 1947.”<sup>11</sup>

**2. CONSTABULARY MISSIONS:**<sup>12</sup> These missions constitute the preponderance of MOOTW missions for offensive air power. In the constabulary, role air power patrols an area in search of violators of a sanction or an exclusion zone. When a violator is detected, offensive air power is used to immediately punish the violator. Force is used only as direct punishment to a violator, not as an independent action. It is in no way related to an effort to defeat the enemy, “it is to deter and suppress violations of the rules”<sup>13</sup> In this role air power is stripped of almost every offensive advantage and forced into a reactive operating mode. As a result, these missions have unique characteristics.

Constabulary missions often put air power in illogical situations. To operate freely in an area air power normally requires air superiority. In the constabulary role, air power is forced to operate in an area which air superiority is threatened by “unattackable” systems. Since air power can only use force in reaction to a violation, threats to air superiority in and around the patrol area cannot be negated with preemptive strikes. Air power is forced to react to violators and any challenge to air superiority the violator may have. The result is military illogical. For example, aircraft patrolling the No Fly Zone over Bosnia during

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<sup>11</sup> Alan Vick and others, Preparing the U.S. Air Force For Military Operations Other Than War (Santa Monica: RAND, 1997), 11.

<sup>12</sup> These types of missions were first categorized by, Carl H. Builder, “Doctrinal Frontiers,” Airpower Journal, Winter 1995, 6-13.

<sup>13</sup> Ibid. 11.



Operation DENY FLIGHT were forced to operate around surface to air missile(SAM) sights. The logical solution was to simply remove the SAM sights with attacks. But instead, the military illogical solution was used by forcing aircraft to patrol the No Fly Zone in and around SAM locations.

Constabulary missions almost always restrict the use of offensive air power. To ensure only the violator is punished, patrolling aircraft are subject to restrictive Rules of Engagements(ROE). Often the use of force must be preceded with a warning or force is restricted for use only in response to an observed violation or attack.

Constabulary mission must trade efficiency for effectiveness. To detect and punish any and every violator, forces must be available 24 hours a day. This results in an extensive force, necessary to detect, track, and engage any violators. During Operation Deny Flight while enforcing the No Fly Zone in Bosnia, NATO aircraft provided 24 hour coverage for two years to prosecute 4 violators.<sup>14</sup>

**3. FORCE PROTECTION:** These missions use offensive air power to provide force protection to a unit conducting MOOTW, such as peacekeeping or peace enforcement. Force protection is critical to the success of MOOTW, as any loss of life has a disproportionate effect on the support for the operation. Like constabulary missions, ROE have a critical role in determining the criteria for the use of offensive air power in the force protection role.

The ROE for air power must consider two characteristics of the air environment. First, the use of force by air power is always a lethal force. Where ground troops have some

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<sup>14</sup>Roberto Corsini, "Balkan war: What Role for Airpower?," Airpower Journal, Winter 1995, 53-68.

elements of non-lethal force to use in place of deadly force, air power must respond with lethal force. Likewise, the use of force against air power is also always a lethal force.

Second, since only lethal force is involved, split second engagement decisions must be made prior to the overt use of force. This time compression often leaves the decision to use force with an individual, not a C2 organization.

### **LASTING C2 FUNDAMENTALS IN MOOTW.**

Through a review of past MOOTW operations which used air power in one of the above roles, the following fundamentals of C2 for air power were developed. Overall, the use of air power ranged from single fixed-wing and helicopter attacks supporting ground troops, to large air strikes. C2 organizations varied from a completely decentralized organization in Somalia, to a completely centralized organization in Bosnia.

1. ***C2 organizations must maintain dominate airspace awareness.*** Airspace awareness is the ability to know exactly what is happening in the airspace at all times to “ensure the transparency of enemy movements both on the ground and in the air”<sup>15</sup> To preserve the initiative of air power conducting constabulary and force protection missions, C2 must maintain airspace awareness to detect violators, separate friendly aircraft, and protect neutral aircraft from engagement. This air space awareness must be dominate as “[w]ith CNN in attendance, there can be no wholesale enforcement of an ‘air exclusion zone’ until it is possible to differentiate unerringly between a gun running helicopter and that carrying

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<sup>15</sup>Barr M. Blechman, and others, “Military Presence abroad in a new era: The role of Airpower,” Strategic Review, Spring 1997, 21.

wounded children.”<sup>16</sup> Airspace awareness is what facilitates the “seamless” transition to the offensive use of air power.

During Operation DENY FLIGHT, NATO fighter aircraft were not allowed to engage Serbian helicopters in the No Fly Zone despite having the authority to do so via U.N. Security Council Resolution 781. NATO’s inability to separate warring faction helicopters from UN peacekeeping helicopters made “[t]he political costs of mistakenly shooting down a helicopter carrying civilians...enormous.”<sup>17</sup>

The key to airspace dominance is found in the method of airspace control. Joint Pub 3-52<sup>18</sup> requires the JFC to appoint an Airspace Control Authority (ACA) whether or not a JFACC is chosen. It is important for the JFC to recognize that the ACA is a separate and distinct function from the JFACC. The ACA is responsible for developing the method to deconflict aircraft actually operating in the Joint Operating Area(JOA). Often the distinction between the JFACC and the ACA is blurred, as doctrine encourages the JFC to combine the two functions under one person.

There are two methods of air space control available to the ACA, positive or procedural. Positive control uses active sensors, such as radar or Identification Friend Foe (IFF) to positively identify, track, and direct air assets. Procedural control allocates different portions of airspace for different types of air operations. The ACA may use any combination of positive or procedural control to meet the needs of the air operation. The

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<sup>16</sup>Brooks, 32.

<sup>17</sup>Dean Simmons and others, “Air Operations over Bosnia, Air ops over Bosnia,” U.S. Naval Institute Proceedings, 123 no 5, May 1997, 61.

<sup>18</sup>Joint Chiefs of Staff, Joint Doctrine For Joint Airspace Control in the Combat Zone(Joint Pub 3-52)(Washington D.C.: July 22, 1995), Joint Pub 3-52.1 page III-3

method of airspace control affects the ability of the C2 organization to achieve dominate airspace awareness.

**2. Ground operations take priority over air operations.** During MOOTW, if air power is centralized to support an air war, unity of effort must be maintained by focusing the air war on supporting the ground troops. Uncoordinated air strikes, conducted independently from the ground effort, can hinder ground operations and threaten the force protection of ground troops. In MOOTW, priority must be given to the ground operations as these are the forces in contact. Ground forces cannot afford to lose one battle in MOOTW. This does not mean offensive missions should be abandoned, particularly if they are flown for force protection. However, if unity of effort is not maintained, the use of offensive air power, even air strikes, can threaten the ground effort.

During Operation DENY FLIGHT, United Nation's(U.N.) peacekeepers were protecting weapons storage sites in the U.N. designated "safe area" of Bihac when Serbian forces increased pressure on the peacekeepers in an attempt to release weapons in the storage areas. In response to these "unacceptable offenses," NATO air power launched a limited air strike on the Serbian air base at Udbina. "The Serbs were unimpressed and undeterred by an attack...which had no impact on their campaign to overrun the 'safe enclave' of Bihac. Instead they took 150 UN peacekeepers hostage and increased their humiliation and harassment of UN units"<sup>19</sup> In this situation the most threatening use of air power, the air strike, actually hurt the ground forces involved. The use of air power was completely detached from the ground situation. In war this might be acceptable for the good of the air

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<sup>19</sup>Tony Mason, "Operations in Search of a Title: Air Power in Operations Other Than War," in Airpower Confronts an Unstable World ed Richard Hallion(London:Brassey's, 1997), 166.

war, in MOOTW this can never happen as it destroys the unity of effort needed for success. The U.N. peacekeepers needed an air attack directed at the approaching Serbian forces. Once the Serbians had the U.N. peacekeepers as hostages, air power was essentially rendered useless.

Air operations supporting Operation RESTORE HOPE provide a similar example. To increase the pressure on General Aideed, night air attacks were launched. Initially declared a success by President Clinton, these air attacks actually strengthened the support for General Aideed. In response to these attacks Aideed supporters used Somali civilians as human shields that rendered air power useless.<sup>20</sup> The planning of these air strikes was independent of the ground operation and hampered ground efforts to control Aideed's supporters. In MOOTW, air power cannot be employed independent of ground operations, instead ground operations must have priority.

To keep the priority on the ground operations a C2 organization must decentralize some, if not all, of the air mission planning to the ground commander. The planning process is the key to integrating ground and air efforts. Delegation of air power to the ground commander--decentralized control, is one method to insure the ground operations are always properly supported.

**3. C2 must maintain flexibility to provide escalation dominance.** If any situation deteriorates, or tensions increase, air power must be available to respond with either increasing presence or force. In the constabulary role, air power must respond against those violators directly responsible for increasing the level of violence. For example, in Somalia

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<sup>20</sup> James O. Tubbs, *Beyond Gunboat Diplomacy*(Maxwell AFB: Air University Press 1997), 39

during Operation RESTORE HOPE, attack helicopters were initially used as a rapid reaction force to deter violations of cease fires. This ability to rapidly escalate helped increase the coercive value of the helicopters to deter future attacks. "The impact of the AHD-1 (Cobra) attack helicopters cannot be overstated. The psychological effect of attack helicopters in this low intensity conflict established the aircraft's value-frequently without firing a shot."<sup>21</sup> Contrast this with NATO air power responding to Serbian escalation taking the form of artillery fire "(S)everal hours delay ensued, with the result that the guns had been withdrawn when the NATO aircraft arrived."<sup>22</sup> Inability to meet escalation with, as a minimum, the presence of air power, slowly rendered air power useless to deter future force escalation. The deterrent value of air power comes from the threat of force and, when necessary, the use of force. Failure to rapidly respond to escalating situations whittles away the deterrent value of the air power.

### **CJCS DIRECTIVE FOR JOINT CONTROL OF AIR OPERATIONS**

The CJCS directive requires the JFC to use a method of centralized planning which provides "positive control of all air operations in a theater, including army helicopters, on the ATO or flight plan."<sup>23</sup> C2 organizations are required to exercise some level of control over all air assets in the Joint Operating Area(JOA) to meet the requirements of this directive. "During OOTW, the consequences of not exercising control over all air operations could be disastrous. Positive control helps avoid fratricide by giving all team members a copy of the gameplan."<sup>24</sup> The directive fails to consider two significant limitations of the ATO.

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<sup>21</sup> Ibid., 34

<sup>22</sup> Mason., 167

<sup>23</sup> Marcus Hurley, "JFACC: Taking the Next Step," Joint Force Quarterly, no 7, Spring 1995, 65.

<sup>24</sup> Ibid 65.

First, the ATO is just a plan, and offers little flexibility in actual operations. The ATO might be the "gameplan" but you need to watch the game to see who is playing. In the reactive environment of MOOTW, particularly during constabulary or force protection missions, the ATO is, at best, a guess of what will happen in the air. Commanders must maintain some flexibility to match escalation attempts or increased presence of violators. The ATO does not have the real-time flexibility needed to preserve escalation dominance.

This lack of flexibility results in the development of individual "work arounds" in the ATO process, particularly for ground commanders who must maintain the ability to react to situations in minutes, not hours or days.

"What I did to make it work for us...was write an ATO that would give me enough flexibility to do the job. So I might write an enormous amount of sorties and every seven minutes I'd have airplanes doing various things-and I might cancel an awful lot of those sorties. This way I didn't have to play around with the process while I was waiting to hit a target. I kind of gamed the ATO process."<sup>25</sup>

Second, the ATO does not help with friendly aircraft deconfliction and fratricide prevention real-time. This is a function of the ACA not the ATO. The ATO is one day old by the time it is executed. As a result, it is impossible to know what has changed and what remains the same. With only two or three aircraft operating in the JOA, deconfliction via the ATO may work. However, as the number of aircraft increase, it is impossible for the ATO to provide the level of information needed to ensure deconfliction. No matter how accurate the ATO becomes, it will never be a real-time deconfliction tool, as it has no capacity to promulgate

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<sup>25</sup> Royal N. Moore, Jr, "Marine Air: There When Needed, in Desert Storm Special Section," , U.S. Naval Institute Proceedings, 117 no 11, November 1991, 63

changes real-time. Flight plans and ATOs are just plans. Their purpose is to facilitate planning, not accomplish real-time deconfliction.

Theater wide, deconfliction of aircraft is accomplished by airspace control. What the CJCS directive does is put the emphasis for aircraft deconfliction and fratricide prevention on the ATO process, not the airspace control process. This is unacceptable, particularly when “work arounds” are developed for the ATO process. The ATO cannot replace the need for dominate airspace awareness.

### **CENTRALIZED CONTROL and MOOTW**

The ability of centralized control to support air operations in MOOTW is dependent on the role air power performs in each missions. Air strikes are best supported by Centralized C2(and the JFACC!) as the number of aircraft involved, and the necessity for unity of effort, lend themselves to centralized control. Air strikes require extensive planning prior to their execution and the centralized planning process fits in nicely as the JFACC becomes a coordination element for the various types of mission aircraft.

When air power is performing the constabulary role, the need for a JFACC is less clear. Since these missions really have no offensive plan, the value of the centralized planning process to the overall air operation is limited. What these missions need is a dominate air space control plan, something the centralized planning process does not provide.

When air power is used in the force protection role, planning is important, but the need is for the planning to take place with the forces air power is protecting. In MOOTW involving ground troops, decentralized execution allows air power to maintain its effectiveness by planning directly with the troops being supported. The inability of air power



to effectively support the U.N. peacekeepers in Bosnia, which lead to the collapse of the U.N. peacekeeping force, is a clear reminder of the limits of centralized C2 in MOOTW.

### **CONCLUSION, THE DEBATE CONTINUES...**

By identifying the three roles of air power in MOOTW it was possible to draw conclusions regarding the C2 organization needed to support air power in these roles. Just like in the North African desert in 1943, both centralized control and decentralized control have value to air power in MOOTW. As the roles of air power vary from the offensive, to the reactive, to the defensive, so does the C2 organization needed to support each mission. Air power in the form of U.S. Army helicopters remained very effective working directly with the ground troops in a highly decentralized C2 organization.

Current joint doctrine is driving C2 organizations toward centralized control by overstating the value of the ATO to the overall operation. While the centralized planning process proved invaluable to the air war in Operation Desert Storm, the reactive environment found in MOOTW is only constrained by this planning process, forcing the users to develop covert work arounds to avoid the system. The ATO is not the answer to the challenges that face C2 organizations in MOOTW. The answer is found in maintaining the ability to employ a C2 organization that fits the needs of air power, not forcing an organization to fit into the operation. Both centralized and decentralized control can still meet the needs of air power. "Military Misfortune lurks somewhere within the bowels of every military operation: It is the 'ghost in the machine' that can be conjured up by a variety of circumstances."<sup>26</sup> C2 was the

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<sup>26</sup> Elliot A. Cohen and John Gooch, *Military Misfortunes, The Anatomy of Failure in War*(Ney York: Free Press 1990) 243

ghost in Operation PROVIDE COMFORT, it could easily be the ghost again, if the drive to push centralized control on all air operations continues.

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